

What Is Claimed Is:

1. A liquid crystal display including liquid crystal pixel cells arranged at each intersection between a plurality of gate lines and a plurality of data lines, comprising:
  - a thin film transistor associated with each pixel cell;
  - a storage capacitor; and
  - a smectic liquid crystal between an upper substrate and a lower substrate, wherein the smectic liquid crystal has spontaneous polarization in a range of approximately  $2\text{nC}/\text{cm}^2$  to  $100\text{nC}/\text{cm}^2$  and a storage capacitance is in a range of approximately  $1\text{nF}/\text{cm}^2$  to  $13\text{nF}/\text{cm}^2$  for optimizing transmittance depending on the spontaneous polarization of the smectic liquid crystal.
2. The liquid crystal display of Claim 1, wherein the spontaneous polarization is in a range of approximately  $2\text{nC}/\text{cm}^2$  to  $10\text{nC}/\text{cm}^2$  and the storage capacitance is in a range of approximately  $1\text{nF}/\text{cm}^2$  to  $4.5\text{nF}/\text{cm}^2$ .
3. The liquid crystal display of Claim 1, wherein the spontaneous polarization is in a range of approximately  $10\text{nC}/\text{cm}^2$  to  $70\text{nC}/\text{cm}^2$  and the storage capacitance is in a range of approximately  $4\text{nF}/\text{cm}^2$  to  $7\text{nF}/\text{cm}^2$ .
4. The liquid crystal display of Claim 1, wherein the spontaneous polarization is in a range of approximately  $70\text{nC}/\text{cm}^2$  to  $100\text{nC}/\text{cm}^2$  and the storage capacitance is in a range of approximately  $5\text{nF}/\text{cm}^2$  to  $13\text{nF}/\text{cm}^2$ .